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PATENT APPLICATION

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IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Radha Sen et al.

Confirmation No.: 9177

Application No.: 10/789,963

Examiner: YOON, Tae H.

Filing Date: February 27, 2004

Group Art Unit: 1796

Title: System and a Method for Forming a Heat Fusible Micorporous Ink Receptive Coating

Mail Stop Appeal Brief - Patents  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL OF REPLY BRIEF

Transmitted herewith is the Reply Brief with respect to the Examiner's Answer mailed on November 26, 2008.

This Reply Brief is being filed pursuant to 37 CFR 1.193(b) within two months of the date of the Examiner's Answer.

(Note: Extensions of time are not allowed under 37 CFR 1.136(a))

(Note: Failure to file a Reply Brief will result in dismissal of the Appeal as to the claims made subject to an expressly stated new ground rejection.)

No fee is required for filing of this Reply Brief.

If any fees are required please charge Deposit Account 08-2025.

Respectfully submitted,

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For: A System and a Method for Forming  
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REPLY BRIEF

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Sir:

This is a Reply Brief under Rule 41.41 (37 C.F.R) in response to the Examiner's Answer of November 26, 2008 (the "Examiner's Answer" or the "Answer"). In Section 10, the Answer contains a response to some of the arguments made in Appellant's brief. Appellant now responds to the Examiner's Answer as follows.

**Status of Claims**

Claims 26-45 and 59-70 were withdrawn from consideration under a previous Restriction Requirement and cancelled without prejudice or disclaimer. Claims 1-25, 46, 47, 50, 54 and 73-79 were also cancelled previously without prejudice or disclaimer.

Thus, claims 48, 49, 51-53, 55-58, 71, 72 and 80-90 are currently pending in the application and stand finally rejected. Accordingly, Appellant appeals from the final rejection of claims 48, 49, 51-53, 55-58, 71, 72 and 80-90, which claims are presented in the Appendix of the previously filed Appeal Brief.

**Grounds of Rejection to be Reviewed on Appeal**

The final Office Action raised the following grounds of rejection.

- (1) Claims 48, 49, 51-53, 55-58, 71, 72 and 80-90 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.
- (2) Claims 48, 49, 51-53, 55-58, 71, 72 and 80-90 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.
- (3) Claims 48, 49, 51-53, 55, 57, 58, 71, 72, 86 and 87 were rejected under 35 U.S.C. § 102(e) as anticipated by of U.S. Patent No. 7,086,732 to Kasperchik et al. (“Kasperchik”). The previous rejection of claims 80-85 and 88-90 as anticipated by Kasperchik has been withdrawn.
- (4) Claims 48, 49, 51-53, 55, 57, 58, 71, 72, 80 and 86-89 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kasperchik, taken alone.

According, Appellant hereby requests review of each of these grounds of rejection in the present appeal.

## VII. Argument

(1) Claims 48, 49, 51-53, 55-58, 71, 72 and 80-90 comply with the written description requirement of 35 U.S.C. § 112, first paragraph:

At issue here is whether Appellant's original specification supports the claimed subject matter of "a first microporous layer comprising a first binder *deposited as a liquid on said substrate.*" (Claim 48) (emphasis added). The Examiner's Answer continues to contend that such subject matter has no written description in the Appellant's originally-filed disclosure. (Answer, p. 7).

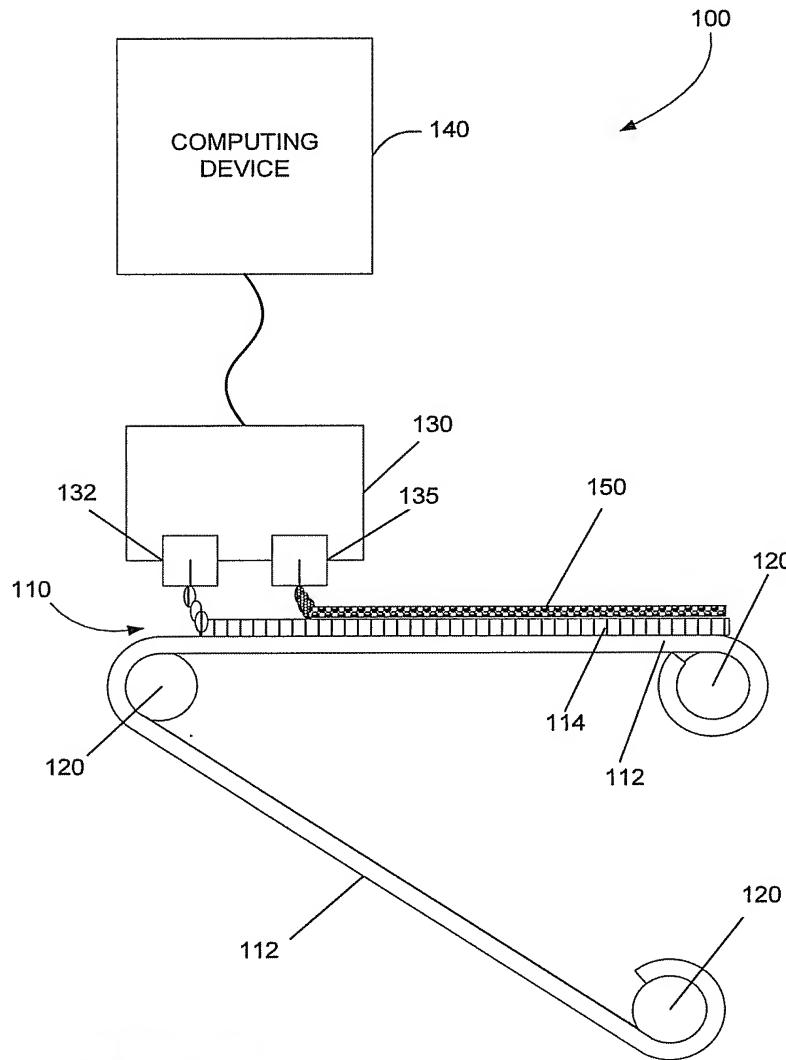
Appellant has referred to both Fig. 1 of the original specification and paragraph 0021 as providing written support for the subject matter in question. Fig. 1 is reproduced and discussed below. Paragraph 0021 of the specification teaches "a microporous substrate (114) is disposed on the photo or film base (112) immediately preceding the deposition of the hard core/soft shell latex (150), according to a wet on wet configuration." (Appellant's specification, paragraph 0021).

In response to Appellant, the Answer exclusively addresses Appellant's argument regarding paragraph 0021. According to the Answer, this does not support the claimed first microporous layer deposited as a liquid because "a wet application does not mean a liquid application since said wet application encompasses a paste application which is not a liquid application. A liquid is not a paste." (Answer, p. 7).

Assuming *arguendo* that the Examiner is correct and the term "wet on wet" is broad enough to include the application of a paste, that does not mean that "wet on wet" precludes a liquid application. The Answer is actually arguing that "wet on wet" can *only* refer to a paste application and not a liquid application. This is clearly wrong. One of skill in the art would

certainly understand that a “wet on wet” configuration would include a liquid application as recited in claim 48.

Moreover, the Answer fails to address Appellant’s Fig. 1 which clearly shows the microporous layer (114) being deposited as a liquid on a substrate (112). Fig 1 is reproduced below.



**FIG. 1**

This alone is adequate written description supporting claim 48.

Additionally, Appellant wishes to refer to Appellant's specification, paragraph 0019 in connection with Fig. 1. As stated in paragraph 0019, "the coating applicator (130) may include, but is in no way limited to, a slot applicator, a roll applicator, a cascade applicator, a slide applicator, a blade applicator, inkjet dispensers, or any other known *liquid* coating technique." (Appellant's specification, paragraph 0019) (emphasis added).

Thus, Appellant's original specification clearly shows in Fig. 1 and states in paragraph 0019 that the coating applicator (130) is depositing a "liquid" coating which is the first microporous layer (114) of claim 48. This should place beyond question that the subject matter in question from claim 48 is supported with a written description in Appellant's originally filed specification. Accordingly, the rejection under § 112, first paragraph, should clearly not be sustained.

(2) Claims 48, 49, 51-53, 55-58, 71, 72 and 80-90 comply with 35 U.S.C. § 112, second paragraph:

The Answer persists in objecting to the claims under § 112, second paragraph. However, as Appellant has noted, none of the cited reasons have any merit and some do not even properly allege an instance of indefiniteness under § 112.

Initially, the Applicant notes that, according to the MPEP, "[s]ome latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire." MPEP § 2173.02. In each of the issues below, the Examiner fails to identify anything that is "indefinite" under § 112.

(1) With respect to claim 48, the final Office Action argued that “[i]t is unclear whether said deposited liquid stays as a liquid or not on said substrate, and thus claims are indefinite.” (final Office Action, p. 3). It is entirely unclear how this creates any indefiniteness.

As noted above, claim 48 recites “a first microporous layer comprising a first binder deposited as a liquid on said substrate.” Thus, if the first microporous layer is deposited as a liquid, it reads on that portion of claim 48. Whether the layer then stays indefinitely in liquid form is not addressed by, or at issue, with respect to claim 48. Therefore, this particular objection raised by the Examiner is entirely without merit and is *not* an instance of indefiniteness. Consequently, this portion of the rejection under 35 U.S.C. § 112, second paragraph, should not be sustained.

(2) The final Office Action next argues that “[t]he recited preamble, ‘The microporous coating of ---’, in claims 49, 50-53, 55-58, 71, 72 and 80-90 lack a proper antecedent basis in claim 48 wherein ‘A print medium’ is claimed now.” (final Office Action, p. 3). Appellant previously demonstrated where the antecedent basis could be found for the claim preambles in question.

In the Answer, the Examiner instead complains that “[a] recitation of consistent preamble in the dependent claims is required.” (Answer, p. 7). Appellant, however, is aware of no such “requirement.” Moreover, the Answer cites none. Until such a “requirement” has been substantiated with legal authority, Appellant respectfully declines to amend the indicated preambles and, in any event, sees no instance of indefiniteness under §112 in this issue.

(3) The final Office Action next argues that “[c]laims 81-84 are confusing and indefinite since they recited polymers (such as polystyrene) for a core material and monomers (such as n-ethylhexylacrylate) for a shell material. Consistency is needed.” (final Office Action, p. 3). The Answer clarifies this position as follows. “[M]onomers do not form a shell and they must be polymerized to become a shell.” (Answer, p. 8).

However, claims 81 and 84 do not recite that a monomer *alone* forms a shell, as the Examiner inappropriately assumes. Rather, claims 81 and 84 merely recites the shell “comprises” monomer particles. As anyone acquainted with U.S. patent practice would know, this does not preclude and actually implies other constituents that assist in forming the shell.

In any event, there is clearly no instance of indefiniteness here under §112, second paragraph. Thus, the rejection of claim 81 and 84 under § 112, second paragraph, should not be sustained.

(4) Finally, with regard to claim 90, the Answer argues “solvents such as 2-butoxyethanol cannot form a shell by themselves.” (Answer, p. 8). However, similar to the point made above, claim 90 does not recite that solvents form a shell “by themselves.” Rather, claim 90 recites “wherein said shell material *comprises* a coalescing agent that lowers the Tg of a shell of said particles.” (Claim 90) (emphasis added).

As above, there is clearly no instance of indefiniteness here under §112, second paragraph. Thus, the rejection of claim 90 under § 112, second paragraph, should not be sustained.

(3) Claims 48, 49, 51-53, 55, 57, 58, 71, 72 and 80-90 are not anticipated by Kasperchik:

Claim 48:

In the present application, claim 48 recites:

A print medium having a microporous coating comprising:  
a substrate which serves as a base of said print medium;  
a first microporous layer comprising a first binder deposited as a liquid on said substrate; and  
a fusible latex layer deposited over said first microporous layer, wherein said fusible latex layer is microporous and includes particles comprising a hard core material and a soft shell material;  
wherein said latex exhibits self-adhesive properties at a room temperature such that said latex layer remains in place on said first microporous layer without requiring a second binder and without being fused.

(Emphasis added).

In contrast to claim 48, the final Office Action does not indicate how or where Kasperchik teaches the claimed “first microporous layer comprising a first binder deposited as a liquid on said substrate.”

According to the Answer, “The examiner has stated that it is unclear whether said deposited liquid in claim 48 stays as a liquid or not on said substrate. Appellant's response is that it is immaterial whether said deposited liquid stays indefinitely in liquid form or not in claim 48. But, claim 48 is directed to a product, not to a process, and thus Kasperchik et al do not need to show said liquid deposition.” (Answer, p. 8). Appellant vehemently disagrees.

Claim 48 does indeed recite a product. At the point in time when the recited microporous layer is deposited on the substrate, claim 48 recites that that microporous layer is in liquid form. This is relevant to the physical structure of the product claim. Appellant has the right to claim a component that is in a particular phase at a particular time. Thus, as Appellant has argued, it is immaterial to the recitations of claim 48 whether the deposited liquid stays a liquid indefinitely.

The inescapable point is that the Examiner has failed to show prior art that anticipates the claimed print medium, which, at the time of manufacture, includes “a first microporous layer comprising a first binder” that is a liquid. It is incumbent upon the Examiner to identify where in the reference each element may be found. *Ex parte Levy*, 17 U.S.P.Q.2d 1461 (BPAI 1990). Consequently, when the Examiner fails to identify a claimed element, the Examiner has failed to establish a *prima facie* case of anticipation. For at least this reason, the rejection of claim 48 and its dependent claims should not be sustained.

Additionally, Kasperchik does not appear to anticipate the claimed fusible latex layer “wherein said latex exhibits self-adhesive properties at a room temperature such that said latex layer remains in place on said first microporous layer without requiring a second binder and without being fused.” The final Office Action equates the claimed fusible latex layer with a “color-receiving layer 8” taught by Kaspercik. (final Office Action, p. 4.). However, in direct contrast to independent claim 48, Kasperchik teaches that the color-receiving layer may include a binder. (Kasperchik, col. 6, lines 49-64).

In response, the Answer argues that “‘may also include’ is an optional expression, and thus, said polymer binder is an optional component.” (Answer, pp. 8-9). This reads too much into what is taught by the prior art. The fact that the prior art states that a binder “may” be used does not mean that one of skill in the art would have taken that reference as affirmatively teaching that no second binder would be used, as recited in claim 48.

In support of its unreasonable conclusion, the Answer can only cited to the “claims of Kasperchik et al wherein no polymer binder is recited.” (Answer, p. 9). Any practitioner knows that a claim with “comprising” is open-ended and recites as few elements as allowable. No one would take the fact that a claim does not recite a binder as an affirmative teaching of

a medium with a latex layer that “remains in place on said first microporous layer without requiring a second binder and without being fused.” (Claim 48).

The Answer is unfairly attempting to read teachings into the cited prior art that simply are not there. For at least these additional reasons, there is no anticipation of claim 48 under § 102, and the rejection based on Kasperchik should not be sustained.

Claim 49:

Claim 49 recites: “The microporous coating of claim 48, wherein said latex layer is ink permeable and permits the transmission of ink through said latex layer to said first microporous layer prior to said fusible latex layer being fused.” In contrast, Kasperchik described its latex “colorant-receiving layer” as only passing an ink vehicle while capturing the colorant of the ink.

According to Kaspercik, “the ink vehicle passes through the colorant-receiving layer 8 and into the vehicle sink layer 6, while the colorant remains in the colorant-receiving layer 8.” (Kasperchik, col. 4, lines 43-46). Therefore, the colorant-receiving layer 8 is not “ink permeable” as recited in claim 49.

The Answer responds by arguing that “colorant-receiving layer 8 would be ‘ink permeable’ inherently since it is porous.” (Answer, p. 9). However, claim 49 does not merely recite that the layer in question is ink permeable. Rather, claim 49 further recites that the claimed layer is arranged to transmit ink through the latex layer to the first microporous layer prior to the fusible latex layer being fused. As demonstrated above, the medium taught by Kasperchik is not so arranged and does not have this feature. Rather, “the ink vehicle passes through the colorant-receiving layer 8 and into the vehicle sink layer 6, while the

colorant remains in the colorant-receiving layer 8.” (Kasperchik, col. 4, lines 43-46).

Therefore, the colorant-receiving layer 8 is not “ink permeable” as recited in claim 49.

For at least this additional reason, the rejection of claim 49 should not be sustained.

Claim 52:

Claim 52 recites: “The microporous coating of claim 51, wherein said hard core material exhibits a glass transition temperature above 80 degrees Celsius and said soft shell material exhibits a glass transition temperature below 70 degrees Celsius.” The final Office Action fails to indicate how or where the prior art anticipates this subject matter.

It is incumbent upon the Examiner to identify where in the reference each element may be found. *Ex parte Levy*, 17 U.S.P.Q.2d 1461 (BPAI 1990). Consequently, when the Examiner fails to identify a claimed element, the Examiner has failed to establish a *prima facie* case of anticipation.

The Answer further fails to indicate how or where the subject matter is taught by the cited prior. (Answer, p. 9). For at least this additional reason, the rejection of claim 52 should not be sustained.

Claim 86:

Claim 86 recites: “The microporous coating of claim 48, wherein said particles are smaller than 200 nm.” According to the final Office Action, this subject matter is inherent in the teachings of Kasperchik. (final Office Action, p. 4). On this point, according to the Answer, “[t]he examiner stated that the core-shell particles in example 1 would meet the claim 86 inherently, and appellant failed to show otherwise.” (Answer, p. 10).

This statement misplaces the burden with regard to a showing of inherency. The Examiner must do more than merely "state" that teachings are inherent in the cited prior art before the appellant must show otherwise. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.' 'Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (citations omitted). "[T]he examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990) (emphasis in original); see also, MPEP § 2112 (quoting Levy).

In the present case, the Examiner has failed to meet this burden of showing that the subject matter of claim 86 is inherent in the cited prior art. Consequently, the rejection of claim 86 should not be sustained.

Claim 87:

Claim 87 recites: “The microporous coating of claim 48, wherein said shell material has a T<sub>g</sub> from above 20 ° C up to 70° C.” The final Office Action fails to indicate how or where the prior art anticipates this subject matter.

In response, the Answer cited to Kasperchik at col. 5, lines 25-29. (Answer, p. 10). However, this portion of the reference describes the T<sub>g</sub> of the “core,” not the *shell*. (Kasperchik, col. 5, lines 25-29).

It is incumbent upon the Examiner to identify where in the reference each element may be found. *Ex parte Levy*, 17 U.S.P.Q.2d 1461 (BPAI 1990). Consequently, when the Examiner fails to identify a claimed element, the Examiner has failed to establish a *prima facie* case of anticipation. For at least this additional reason, the rejection of claim 87 should not be sustained.

(4) Claims 48, 49, 51-53, 55, 57, 58, 71, 72, 80 and 86-89 are not obvious overKasperchik:

This rejection must fail under 35 U.S.C. § 103(c).

According to the Answer, “Appellant failed to invoke a common ownership under 35 U.S.C. 103 (c) in timely manner.” (Answer, p. 11). This is utterly unreasonable.

In the first place, § 103(c) does not have a “timing” provision. 35 U.S.C. § 103(c) states:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Thus, Kasperchik is unavailable as prior art under § 103(a) whenever the facts required by § 103(c) have been shown.

In the present case, Kasperchik was never applied under § 103(a) until the final Office Action of March 6, 2008. Accordingly, in Appellant's next filing, Appellant asserted on the record "that the subject matter of the present application and the Kasperchik reference were, at the time the invention of the present application was made, owned by, or subject to an obligation of assignment to the same person, i.e., Hewlett-Packard Development Co."

(Appeal Brief filed June 25, 2008, p. 22).

Consequently, under 35 U.S.C. § 103(c), the Kasperchik reference *cannot* be applied as prior art against the present application under 35 U.S.C. § 103(a). Therefore, the listed rejections of claims 35-39, 49 and 50, which apply Kasperchik under § 103(a), cannot be sustained.

In view of the foregoing, it is submitted that the final rejection of the pending claims is improper and should not be sustained. Therefore, a reversal of the Rejection of March 6, 2008 is respectfully requested.

Respectfully submitted,

DATE: January 26, 2009

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